Bolzano/Bozen, 30 August 2021

Market research events infrastructure

This document concerns market research for the identification of a partner that can support NOI S.p.A. in activities regarding the set up of an interoperabile infrastructure for video and chat to use mainly during hybrid events (hackathons and large conferences). The development must be based on open source software and tools.

Nature of Innovation.

Indice

1. Objective

The goal of this market research is the identification of a partner that can support NOI S.p.A. regarding the development of an interoperabile infrastructure for video and chat to use mainly during hybrid events (hackathons and large conferences).

The infrastructure developed should be based on open source technologies. The main objective of the infrastructure is to enable the blended (or hybrid) version of the event organized by NOI S.p.A. and let the online participants enjoy them as much as possible.

Main source of inspiration for this is the management of the 2021 FOSDEM (https://matrix.org/blog/2021/02/15/how-we-hosted-fosdem-2021-on-matrix).

Status quo

An infrastructure to manage video and chat during events is already in place and has been used to manage the 2020 edition of our events (South Tyrol Free Software Conference - SFScon and NOI Hackathon Summer Edition).

An overview of the infrastructure used can be seen in the image below. The image refers to the infrastructure used for SFScon 2020. Main features are:
- to host online speakers a custom Jitsi platform is used
- a separate backstage channel on Jitsi is used to prepare online speakers
- Jitsi platform is connected with video direction who manages the streaming of the event
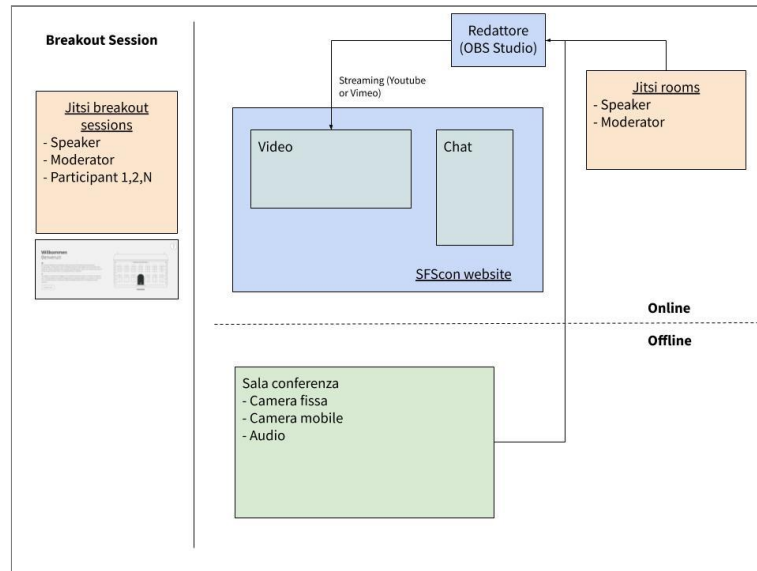- the live streaming is performed through Youtube live channel

Nature of Innovation.

- chat is integrated directly in the website of the conference (developed in Wordpress)
- questions are collected manually by chat moderators and pass to track moderators through internal chat (Slack)
- breakout sessions can be organized as a Jitsi session on the St.Virtual service (https://virtual.noi.bz.it/)

Regarding the infrastructure used for NOI Hackathon Summer Edition events there are some differences:
- Jitsi platform has been used for online participants to interact with organizers and on premise participants
- chat for hackathon events is implemented through Slack: this chat has both internal organizational purpose and chat for participants

Video support and streaming infrastructure

Main features of the video streaming infrastructure should be:
- guarantee at least five tracks simultaneously live streaming
- infrastructure should be able to interface with different live streaming platforms (Youtube, Vimeo, etc.)
- video infrastructure must interface with the physical studio present on site and the tool used to present the speakers. The video direction tool to interface with may not be OBS Studio. Video direction is always done by outside companies that obviously use the tools they usually use. RTMP source is preferred
- video infrastructure should allow sharing directly the audio and video source (as in theory does Zoom) with the tool used by the video direction
- dedicated backstage channel for every event track: the link to the live streaming channel is shared with the speaker by the staff through a 1:1 room to avoid live stream bombing
- flexible or predefined break out rooms; Q&A Sessions with the speaker and participants after the talk

Nature of Innovation.

- in case of hackathons an opening room where moderators of the event and all participants are present is needed, each participant need to briefly present himself to other attendees
- in case of hackathons break out rooms are needed for single teams to coordinate

Communication infrastructure

Main features of the communication/chat infrastructure should be:
- chat as a support for a live streaming event: attendees can freely discuss about what they are looking at and can also pose questions to the speakers (these questions should be clearly identifiable and reach the organization team). It should be possible to moderate discussion to avoid spam messages or bots
- chat to create discussion group: attendees should have the possibility to create dedicated chat and invite others to join to promote discussion on specific topics
- chat for organizational matters: in this case the role of the chat is to be a support medium between members of the organizational team and the attendees
- in case of hackathons chat for discussion are also needed for each team to coordinate activities

Other requirements

Main features should be:
- single user interface for attendants to follow the streams and the chat
- authentication:
    - single authentication method for both systems
    - (OPTIONAL) The channels should either be freely accessible (maybe just name and email), or with limited access to the organization staff and who registered to participate to the event (nice to have: registration process is managed separately with a website based on Pimcore, auth docs)
- Q&A to the on site speaker
  The chat tool should make it easy for the question to get to the moderator

Numbers and other information

- SFScon 2020 edition had a peak of 3.000 online participants
- largest hackathons involved nearly 150 users in the communication channel (participants, organization team, sponsors, mentors, etc.)
- the developed infrastructure will be deployed on the AWS infrastructure managed by NOI S.p.A.

2. Constraints

Where the creation of material subject to proprietary rights, including copyrights, sui generis data rights, and related rights, including solely of photographs,

industrial design, all rights of economic exploitation arising from achieved results are reserved to NOI L.t.d., excepting those expressly excluded when the order is placed.

Further, if the material includes a software development project, all source code from libraries or other modules used in the realisation of an assignment and belonging to a third party must be released under an Open Source license (opensource.org/ licenses) in a manner compatible with the scope of the "outbound" software license, without requirement for adaptation, addition, cancellation or requests for permission from third parties on the part of NOI L.t.d. In the absence of any expressly indicated license, the terms of the GNU GPL v3 license shall apply. The use of material belonging to third parties must be expressly declared at the time of the offer, or be easily and immediately understandable from the description of the project. In the event that code is developed during the realisation of this assignment, NOI L.t.d. will initiate a Git repository on which the supplier must develop and publish the source code.

If the material consists of data, creative works (drawings, literary works, cinematographic works, figurative art, photographs), industrial design or other material which are subject in whole or in part to the proprietary rights of a third party, the use of such material is permitted provided it is licensed under conditions compatible with the license under which said material will be published, if indicated. If no license is indicated, the material will be subject to conditions compatible with the Creative Commons Zero (CC0) license.

3. Requests to the supplier

3.1 Timings

Development of the infrastructure should consider the calendar for the next event where this infrastructure will be used. The main event is the SFScon in November and the Open Data Hub Day should be considered a general probe for the system.

Events	Dates
Open Data Hub Day	01.10 / 02.10.2021
South Tyrol Free Software Conference	12.11 / 13.11.2021

Development will be organized in sprints using agile methodologies.

3.2 Competences

Considering the activities included in this market research, the service provider who wants to send an offer should provide a list of references. In particular for these type of activities:

Nature of Innovation.

- development,maintenance and support during events of video conference platforms;
- development, maintenance and support during events of chat platforms;
- background and technical competences.

3.3 Invoicing

The invoicing of the activities concluded by the supplier will be sent to NOI S.p.A via electronic invoice only after the outputs produced have been successfully tested by NOI S.p.A. Before to proceed with the testing of the outputs, the supplier must provide to NOI S.p.A.:
- the produced documentation;
- if code development is planned, the code must be uploaded to the Git repository provided by NOI S.p.A;
- in the case of multimedia contents (e.g. photos, videos, illustrations, documents), the service provider ha to upload it on specific platforms (e.g. Vimeo, Flickr, etc.) and provide the source files or open versions through appropriate file hosting services indicated by NOI S.p.A.

All invoices issued by the successful bidder must indicate that it is a transaction subject to the Split Payment discipline pursuant to Article 17-ter of Presidential Decree 633/1972 and must be issued exclusively in electronic format (code **T04ZHR3**).

Considering that one or more outputs that will be produced within this assignment may relate to projects financed by means of European funding, during testing NOI SpA reserves the right to be able to communicate any additional information to the awarded company (e.g. CUP code , project identification code and other specific information) which must be reported on the invoice.

4. Documentation

In order to participate to this market research, we kindly ask to provide the following documentation:
- the company description that includes also the list of references in similar projects;
- the total cost for the realization of the described activities
- the hourly rate of support staff during the events for the described activities

Nature of Innovation.

5. Deadlines and contacts

The service providers who are interested in participating in this market research will have to present their offer within the **7th of September 2021**.

In case of question please contact:
Luca Miotto
Email: l.miotto@noi.bz.it
Tel.: 0471-066675

Nature of Innovation.